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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,404	07/24/2006	Felix Flachsmann	102790-216 (30084 US)	1503

27389 7590 12/30/2008

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EXAMINER
GRESO, AARON J

ART UNIT	PAPER NUMBER
4131	

MAIL DATE	DELIVERY MODE
12/30/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/597,404	FLACHSMANN ET AL.	
	Examiner	Art Unit	
	AARON GRESO	4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☒ Claim(s) *27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/11/2008, 08/14/2006, 07/24/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by *McGee et al. (US App 2004/0248762).*

McGee et al. (claim 28 compound GR-85-2666/000 page 12 and) disclose fragrance making processes (page 4 paragraph [0058]) that employ at least one of the Applicants' compounds. The fragrance compound is in *McGee et al.'s*, claim 28 table.

The composition is as indicated in Figure 1 below:

GR-85-2666/000

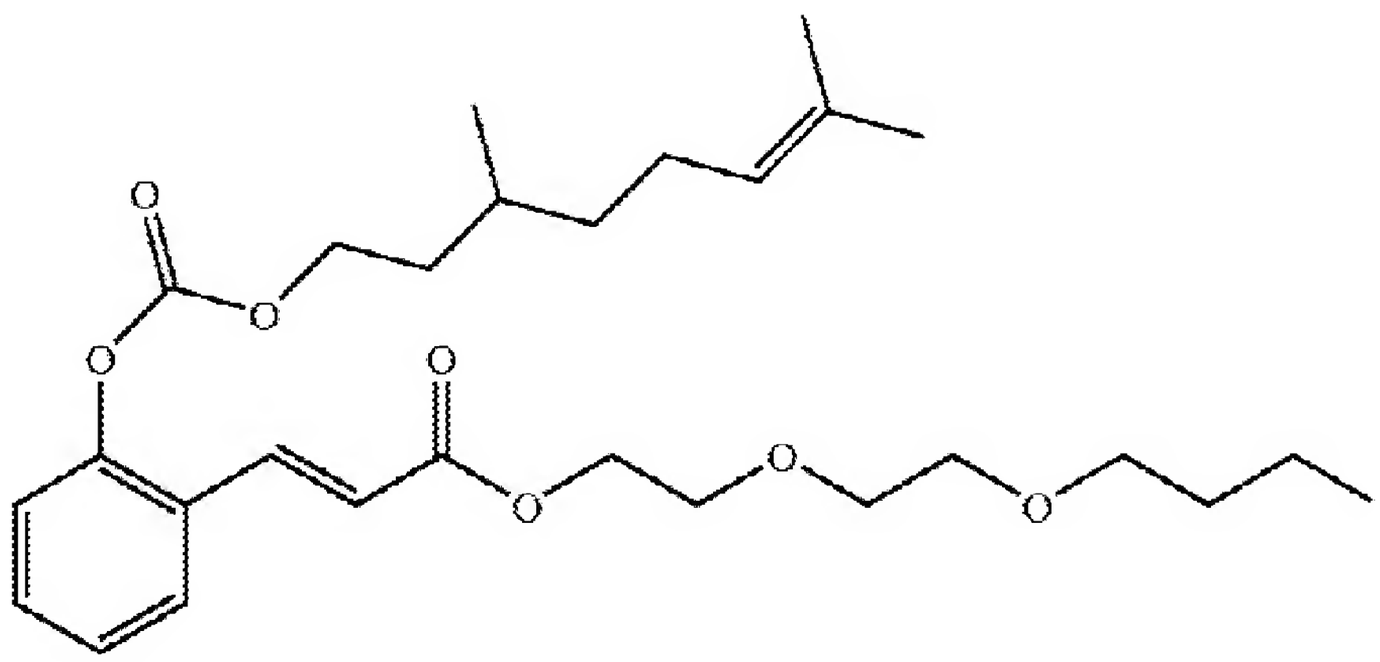
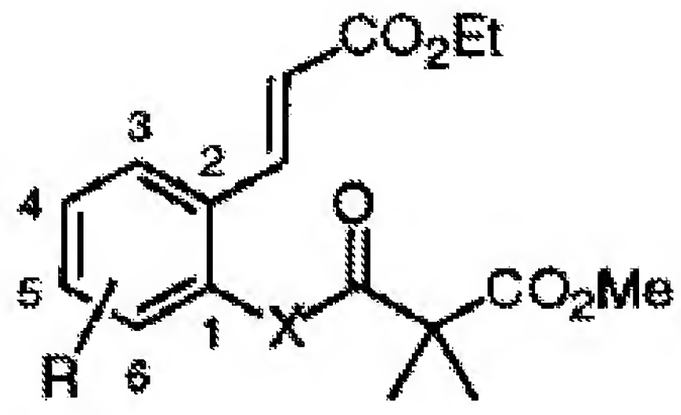


Figure 1. Chemical Species of McGee et al., found within the Applicants' genus, and used for fragrance compositions.

McGee et al. is silent on the decomposition properties for the chemical listed by the applicant (instant Claim 1) and an odor. However, the chemical used in the process of making the composition is a species in the Applicants' genus and it would be expected to have the same properties regarding odor or decomposition as those claimed by the Applicants; the chemicals properties being inherent.

Claims 1, 6, 8, 9, 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by *Bunce et al. (Tetrahedron Vol 53 no 28 pp 9477-9486; 1997)*. The chemical, listed as number 16 (see page 9478 near top of page) falls within the Applicants' genus. In this case n is 1, Y is a methyl group, R is -C-$(CH_3)_2$(C=0)-O-CH_2CH_3. In this case, R^5, R^6, and R^7 are -C, H, and H; see Figure 2 below.



16 (R = H, X = O)

Figure 2. Structure 16 from Bunce et al.

The reference remains silent on the chemical's decomposition products or odor properties but because it is a species in the applicants' claimed genus, it would be expected to have properties identical to the same chemicals in the Applicants' genus; the chemical's properties being inherent to those in the genus.

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by *Russell et al. (Bioorganic Chemistry Vol 27 pp 339-350, 1999).*

Russell et al. discloses a chemical used for the purpose of obtaining subsequent chemicals *(p 341 2nd paragraph, 1st sentence)*. The chemical, butane 1,4-di-(2-methoxycarbonyloxy)cinnamate (p. 348, 1st full paragraph, lines 26-38 of the paragraph), is synthesized and then mixed with other chemicals (including ethyl alcohol, commonly used in the art). This chemical is shown in Figure 3 (and is further considered the "chemical in Figure 3") along with at least some of its various names, and comprises cinnamic acid (which is also shown in Figure 3).

Functional groups of the reference's chemical in Figure 3 apply to the Applicants' genus where:

CASE I

n= 1

R = methyl

Y includes all atoms included and starting at the ester group attached to the butane group and proceeding to the nearest methoxy group.

R^2 , R^3 and R^4 = hydrogens

R^5= 3 carbon chain after the first carbon next to the ester grouping and proceeding to the next ester group (3 carbons).

R^6= the next ester group until but including the benzyl ring (9 carbons).

R^7= being the carbons of the "-O-C(O)-O-methyl" group attached to the benzene ring (2 carbons).

$R^5+R^6+R^7$ = 14 carbons

Additionally, the chemical in Figure 3 can also be regarded as containing double bonds. In such a case, Y can also be considered as comprising:

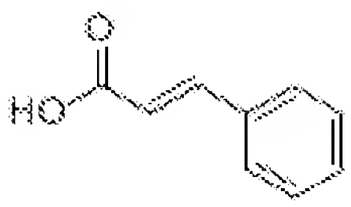
CASE II

R^8: the last 3 carbons of the butyl group and the residue up to the double bond just prior to the benzene ring.

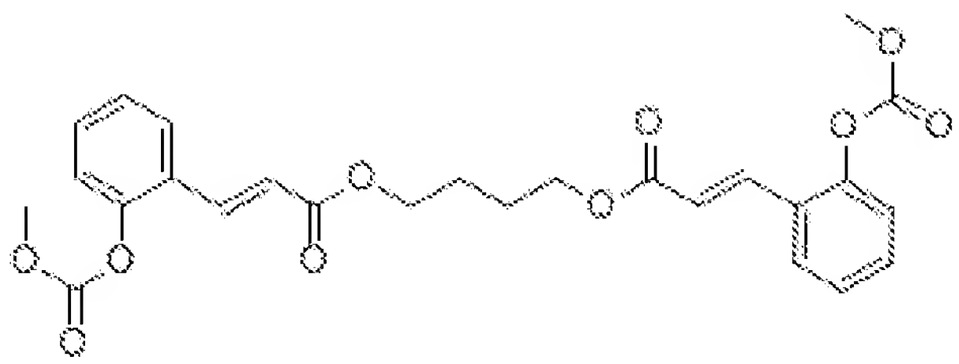
R^9 being the benzene ring up to the oxygen directly bonded to the benzene ring.

R^{10} being as defined for C^7 above

$R^8+R^9+R^{10}$ = 12 carbons

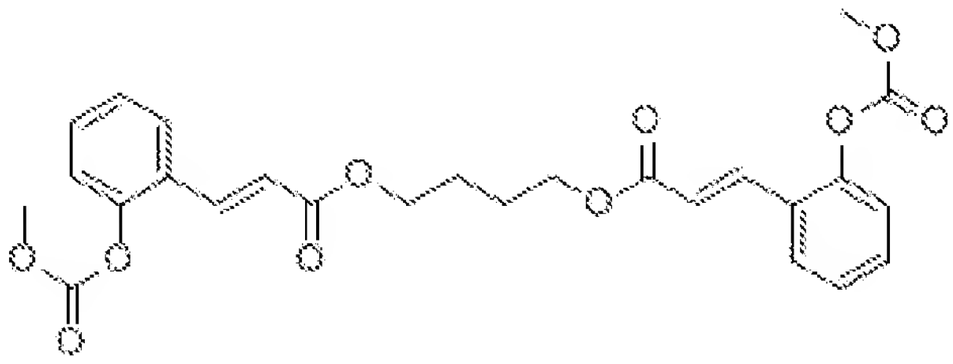


cinnamic acid



1,4-butanediyl-di-(2-methoxycarbonyloxy) cinnamate

(2*E*,2'*E*)-butane-1,4-diyl bis(3-(2-(methoxycarbonyloxy)phenyl)acrylate)



3-[2-[(methoxycarbonyl)oxy]phenyl]-2-propenoic acid 1,4-butanediyl ester

(2*E*,2'*E*)-butane-1,4-diyl bis(3-(2-(methoxycarbonyloxy)phenyl)acrylate)

Figure 3. Cinnamic acid in comparison with the chemical disclosed by *Russell et al.* The chemical, 1,4, butane diyl-di-(2-methoxycarbonyloxy) cinnamate; referred by the reference as butane 1,4-di-(2-methoxycarbonyloxy)cinnamate; can also be described as 3-[2-methoxycarbonyl)oxy]phenyl]-2-propenoic acid 1,4-butanediyl ester as well as others provided in the figure. [Note: single bonds, not connected, end with a methyl group.]

As to Claim 1, as above, the reference teaches mixing the ingredient with a perfume chemical and satisfies the Applicants' genus.

The reference is silent on the odor and decomposition of the chemical. However, the reference discloses the chemical is of a type used in the perfume industry

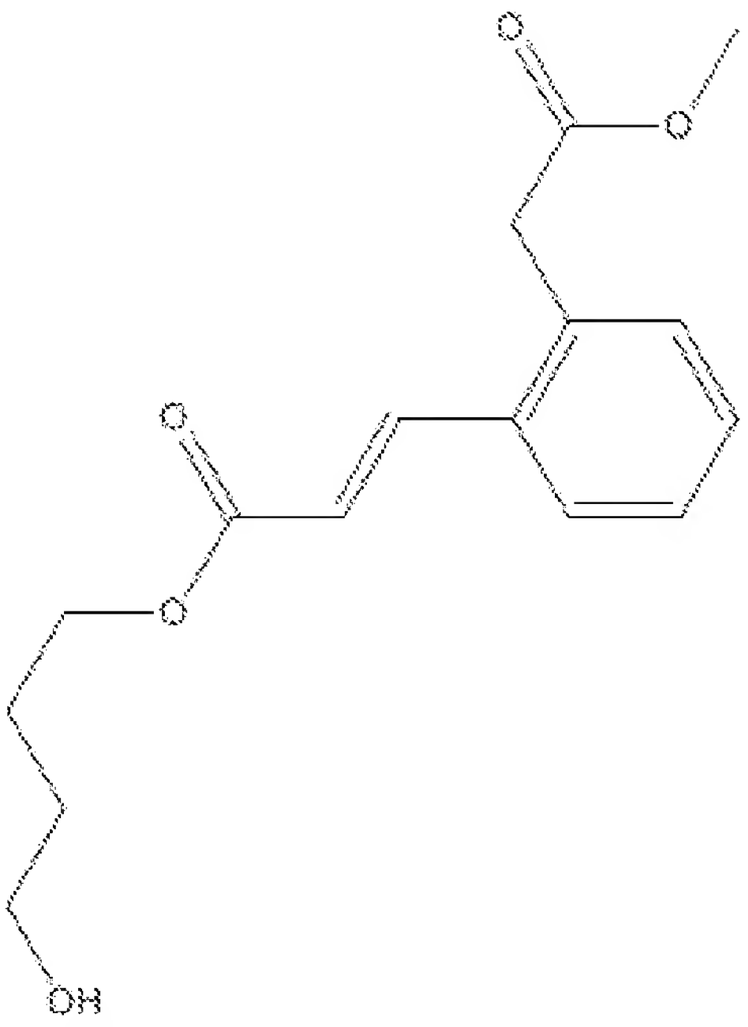
and the decomposition of the chemical, found in the Applicants' genus, would be expected to have the same decomposition properties claimed by the applicant.

As to Claims 6-11, as above: the sum of $R^5+R^6+R^7$ is 14 carbons (, at least one is not a hydrogen, and all contain at least a C_1-C_{10} hydrocarbon residue as defined by the Applicants (25^{th} paragraph of the instant Specification: page 5 line 26-32).

Claims 1-17 appear to apply only when certain species of X and Y are chosen in Claim 1. For example, if Y is $CR^8=CR^9R^{10}$, then the limitations of the Claim 12 do apply. Otherwise, the limitations do not apply and the claims are rejected.

As to Claims 18-19, when the chemical in Figure 3 is introduced into ethanol, *Russell et al.* anticipates a composition that enables delivery of the decomposition product(s) of the chemical when subsequently activated. Since the chemical is a species in the Applicants' claimed genus, the decomposition products would be the same as those envisioned by the Applicants.

As to Claims 20-26, Russell is silent on the molecular weight of any fragrant decomposition products developing upon hydrolysis, as indicated by the Applicant (instant Specification, page 9 line 13). However, a hydrolysis product of the chemical in Figure 3 would comprise a cinnamic acid derivative.



(*E*)-4-hydroxybutyl 3-(2-(2-methoxy-2-oxoethyl)phenyl)acrylate

Figure 4. Hydrolysis product of the chemical in Figure 3.

Figure 4 shows a hydrolysis product of the type indicated in either claim 19 or 21 that is expected to have an inherent odor (as indicated for cinnamic acid derivatives in the Merck Index, 11th ed. Page 357 no. 2300) that would be expected from the chemical in Figure 3. The chemical has 20 hydrogens, 12 carbons, and 5 oxygens comprising a molecular weight of about 292. The chemical is defined according to Case I and as for $R^{5\text{-}7}$, as above, for the Chemical in Figure 3.

Allowable Subject Matter

Claim 27 is objected to as being dependent upon a rejected base Claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: A thorough search of prior art fails to discover a chemical comprising Formula i), representing the group R as attached to Formula (I), that is used in a process to provide an olfactory compound upon activation.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON GRESO whose telephone number is (571)270-7337. The examiner can normally be reached on M-F 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner
Art Unit 4131

AJG